Claims

[c1]   What is claimed is:

1. A method for converting a document into a full-page image using a graphical device interface (GDI) of an operating system, the operating system being installed on a computer system for controlling operations of the computer system, and the GDI capable of managing graphical processes of the computer system, the method comprising:

providing objects of the document and coordinates of the objects in the document using the GDI;

dividing the document into a plurality of blocks;

establishing an address array having a plurality of address units, wherein each of the address units corresponds to one of the blocks for recording positions of the objects in the block;

updating the positions recorded in the address units according to the coordinates of the objects provided by the GDI;

generating a corresponding image piece for each block according to the updated positions recorded in the corresponding address unit; and

merging the image pieces into the full-page image.

[c2]   2. The method of claim 1 wherein when updating the positions recorded in any of the address units, if the corresponding block of the address unit contains any part of the objects of the document, an upper left coordinate and a lower right coordinate of the parts of the objects in the block are written into the address unit.

[c3]   3. The method of claim 1 wherein when updating the positions recorded in any address unit, if the corresponding block of the address unit does not contain any part of the objects of the document, a predetermined flag is written into the address unit.

[c4]   4. The method of claim 1 wherein when generating any image piece of the blocks, if the block contains any part of the objects of the document, the image piece is generated by performing a conversion process on the block.

[c5]   5. The method of claim 4 wherein when performing the conversion process, an

object in the block is converted into gray-level image data, and the gray-level image data is converted into the image piece.

[c6]   6.The method of claim 4 wherein when performing the conversion process, an object in the block is converted into cyan-magenta-yellow-black (CMYK) image data, and the CMYK image data is converted into the image piece.

[c7]   7.The method of claim 1 wherein when generating any image piece of the blocks, if the block does not contain any part of the objects of the document, a plurality of pixels having a predetermined code are merged into the image piece.

[c8]   8.The method of claim 1 wherein the blocks are of equal size.